

ASABE-ICC 802 Update Test Methods Task Group Meeting

October 29, 2018

Attendees: Julius Duncan, Joanna Kind, Jeff Lee, Kelsey Jacquard, Brent Mecham, Tim Malooly, Ed Pike, Sean Steffensen, Kaomine Vang,

Action Items:

- Kaomine – provide ballpark verification test costs where available
- Kaomine – look into whether lessons learned from WaterSense validation testing of method for pressure regulation would provide lessons that would apply to other standards as well
- Joanna – provide test data from WaterSense development, which may be covered by graphs showing hysteresis and other data she sent to ICC
- Joanna/Julius – dig up data to show whether or not additional test points are necessary/helpful for the SSB pressure regulation test method (masked data). Find info on why US EPA eliminated some of the pressure steps.
- Ed – find info on additional test points and bring back to the group
- Ed and all – look into funding for testing
- Ed – send out meeting invitation for Nov 15, 1-2 pm

Notes:

1. EPA Comments

- A. Comment: WaterSense requests that the committee complete validation testing for each test method included in the standard

Summary of Discussion:

- Discussion of cost, and whether there is existing information about cost.
 - Would need resources to fund outside lab; or time & staff for manufacturer(s) to test in-house.
 - CIT has tested most if not all of these test methods and could give us some ideas
 - Manufacturers may have already tested using these methods, for example, for check valves
 - For some plumbing products, lab space was donated, or manufacturers donated time/space/materials.
 - One challenge is that manufacturer in-house or contracted testing may cover a lot of testing that has not been reported
 - the question was asked whether the standards could include a reporting requirement
- Significant agreement to discourage adopting new test methods that have not been validated, due to difficulty of fixing them later
 - Would lessons learned by WaterSense for improvement of pressure regulation method potentially apply to other test procedures?
 - Concern about making improvements to existing unvalidated standards without validating them
 - On the other hand, some housekeeping-type improvements may not be directly tied to the validity of the underlying test method

- However, there was not support for deleting existing methods in ASABE/ICC_802 if validation testing is not feasible for all of the existing standards
 - Action Item - Ed and all – look into funding for testing
 - Action Item- Kaomine – provide ballpark verification test costs where available
 - Action Item - Kaomine – look into whether lessons learned from WaterSense validation testing of method for pressure regulation would provide lessons that would apply to other standards as well
- B. Comment: WaterSense recommends replacing the text in Section 303.5.2 with the pressure regulator test method included in Appendix B of the WaterSense Specification for Spray Sprinkler Bodies

Summary of discussion:

- WaterSense test method is a significant improvement, such as developing a needle valve to control flow rates and including a reset to zero step between test pressures to avoid hysteresis
- WaterSense also reduced the number of test pressures; and eliminated the requirement to test at descending pressures based on the expectation that the new test method would avoid the need for this additional testing.
- How much to simplify the number of test points currently required in ASABE/ICC-802 was discussed
 - WaterSense requires four test points – regulation pressure, + 10 psi, 60 psi, and max rated psi
 - CA IOU CASE report proposed testing at regulation pressure and then at 10 psi increments
 - General consensus that testing at regulation pressure +5 psi can be dropped because pressure regulation is not necessarily intended to operate at that level
 - CIT expects that each additional test point would add 10-15 minutes per test
 - Don't want manufacturers to understate rated pressure to save on testing costs
- *Action item - Joanna/Julius – dig up data to show whether or not additional test points are necessary/helpful for the SSB pressure regulation test method (masked data). Find info on why US EPA eliminated some of the pressure steps.
- *Action Item: US EPA data will show performance of product when tested at 10 psi increments and Joanna will make sure that Task Group has this data
- *Action item - Ed will look for prior CASE Team analysis of this data

2. CA IOUs Comments

- CA CASE Report proposed adding additional flow rate at 0.75 gpm and California Energy Commission proposed to require that manufacturers “test and list” product performance at 0.75 gpm.
 - If ASABE/ICC_802 does not include an optional test requirement at 0.75 gpm, a regulatory agency could likely just write that requirement into their own standards if they wish to do so
- This topic is relevant because SSBs will be operated at/near this flow rate with some nozzles, like quarter-circle or MSMT
- Unfortunately, there may be a lack of data because US EPA tested at 1.5 gpm and 3.5 gpm and asked for any testing data at 0.75 gpm but didn't receive any

- The Task Group discussed whether validation testing of just one model from each of three major manufacturers would be useful (Hunter, Rain Bird, and Toro) to compare performance at 0.75 gpm to performance at 1.5 gpm.
 - Masked data should be fine if any entity(s) willing to provide this data prefer to mask the data.
 - The Task Group discussed the cost of testing
 - Testing to EPA WaterSense specification at one lab costs about \$2,000 for one product, and three products would be less \$10k. Just adding another flow rate would not cost much more than a couple hundred more dollars of student time once products were set up for testing at 1.5 gpm.